



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : A61B 5/05, A61M 31/00	A1	(11) International Publication Number: WO 95/28878 (43) International Publication Date: 2 November 1995 (02.11.95)
(21) International Application Number: PCT/US95/04824 (22) International Filing Date: 24 April 1995 (24.04.95) (30) Priority Data: 08/231,800 25 April 1994 (25.04.94) US (71) Applicant: MINIMED INC. [US/US]; 12744 San Fernando Road, Sylmar, CA 91342 (US). (72) Inventors: LORD, Peter, C.; 25505 Old Course Way, Santa Clarita, CA 91355 (US). COLMAN, Fredric, C.; 16339 Shamhart Drive, Granada Hills, CA 91344 (US). (74) Agent: LOWRY, Stuart, O.; Kelly, Bauersfeld & Lowry, Suite 1650, 6320 Canoga Avenue, Woodland Hills, CA 91367 (US).		(81) Designated States: CA, JP, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report.</i>

(54) Title: INFUSION PUMP AND GLUCOSE SENSOR ASSEMBLY**(57) Abstract**

An infusion pump system (10) includes a removable *in vivo* glucose sensor (16) for monitoring glucose concentration level in a patient (12), and for signaling an infusion pump to deliver a selected medication such as insulin to a patient. The glucose sensor (16) comprises a sensor cable (30) for placement through a catheter to position a distal sensor tip (20) at a selected *in vivo* sensor site. A proximal end of the sensor cable seats within a connector fitting (18) mounted on the catheter (24) at a convenient and accessible subcutaneous position. The connector fitting (18) couples the sensor cable

(30) to an implanted control unit (26) which signals the infusion pump (14) to deliver the patient (12) medication. In a preferred system, the infusion pump (14) is also implanted and receives control signals via a direct or telemetric connection. The sensor cable (30) is easily accessed at the connector fitting (18) for periodic sensor removal and replacement, without requiring removal or replacement of other system components.



